Journal Question #1

Explain what it means to say \( \lim_{x \to 4} x^2 = 16 \).
Journal Question #2

Explain what it means to say \( \lim_{x \to 4^+} x^2 = 16 \).
Journal Question #3

After initially evaluating a limit, describe what the following results would tell you what to do?

1. \( \lim_{x \to 2} f(x) = \frac{0}{5} \)
2. \( \lim_{x \to 2} f(x) = \frac{0}{0} \)
3. \( \lim_{x \to 2^+} f(x) = \frac{5}{0} \)
Journal Question #4

• Explain what the following limit tells you.

\[
\lim_{{x \to 1}} f(x) = 6
\]
Journal Question #5

• Explain what the following limit tells you.

\[
\lim_{x \to \infty} f(x) = 5
\]
\[
\lim_{x \to \infty} f(x) = -2
\]
Journal Question #6

• Explain what the following limits tell you.

\[ \lim_{x \to 3^-} f(x) = \infty \]
\[ \lim_{x \to 3^+} f(x) = -\infty \]
Journal Question #7

• Explain how you know a function is continuous?